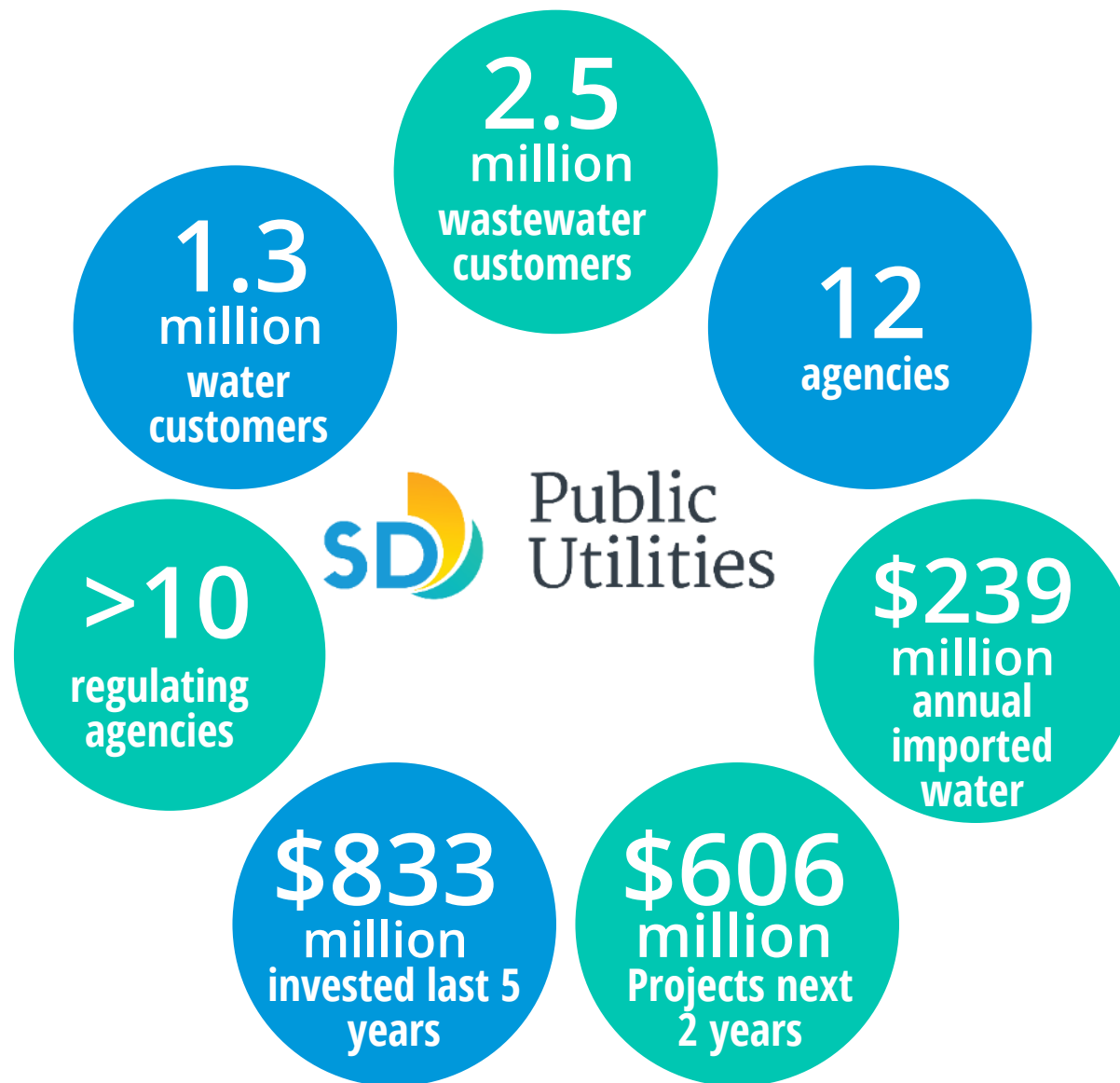


Pure Water San Diego Program

Public Utilities Department

San Diego PUD: The Numbers

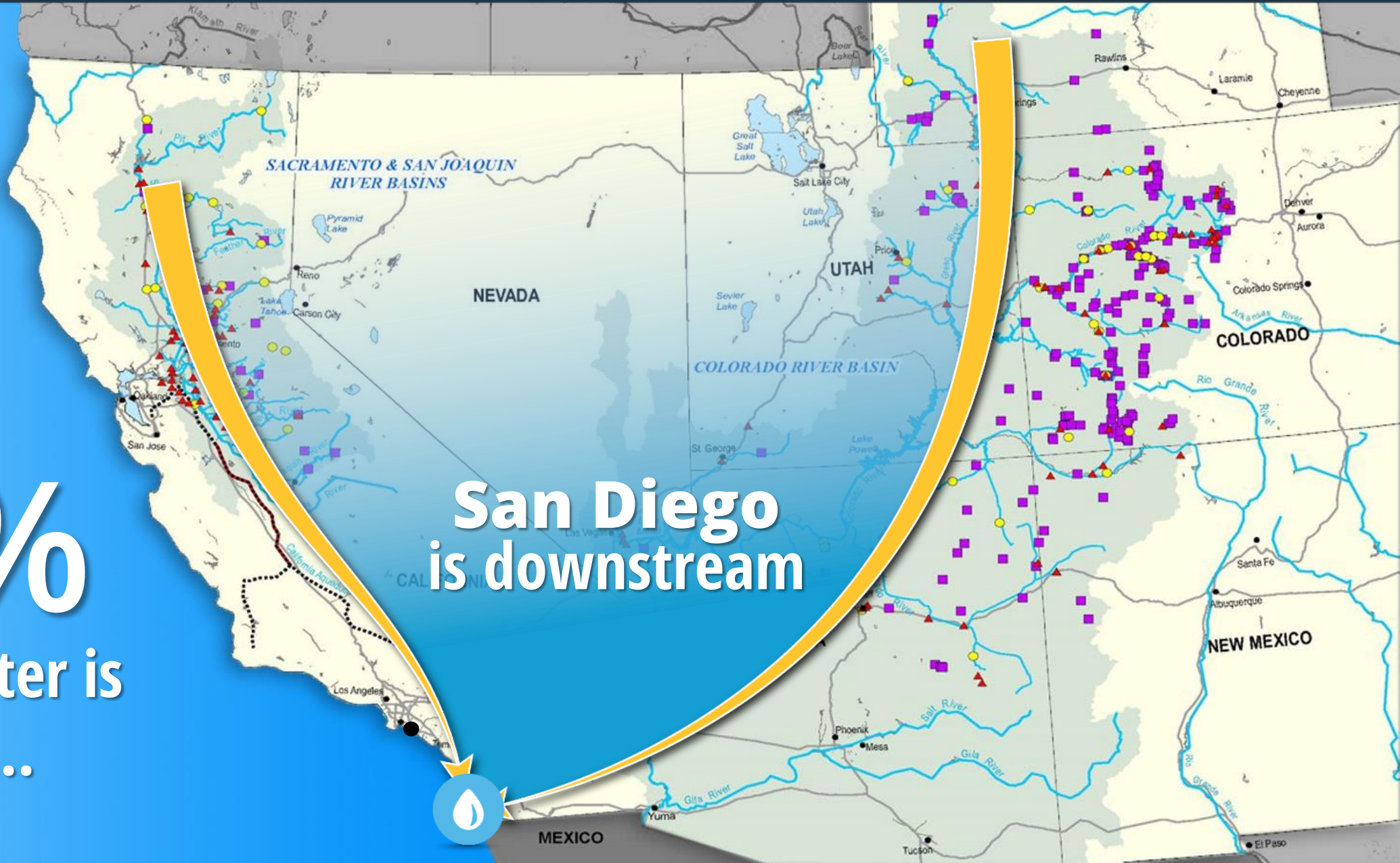




San Diego's Water Supply

85%
of our water is
imported...

**San Diego
is downstream**



We Face Numerous Water Challenges

Imported water cost per acre-foot



2000



2016

- Limited local & imported supplies
- Population growth
- Bay Delta constraints
- Natural disaster risk
- Rising imported water costs
- Recurring drought

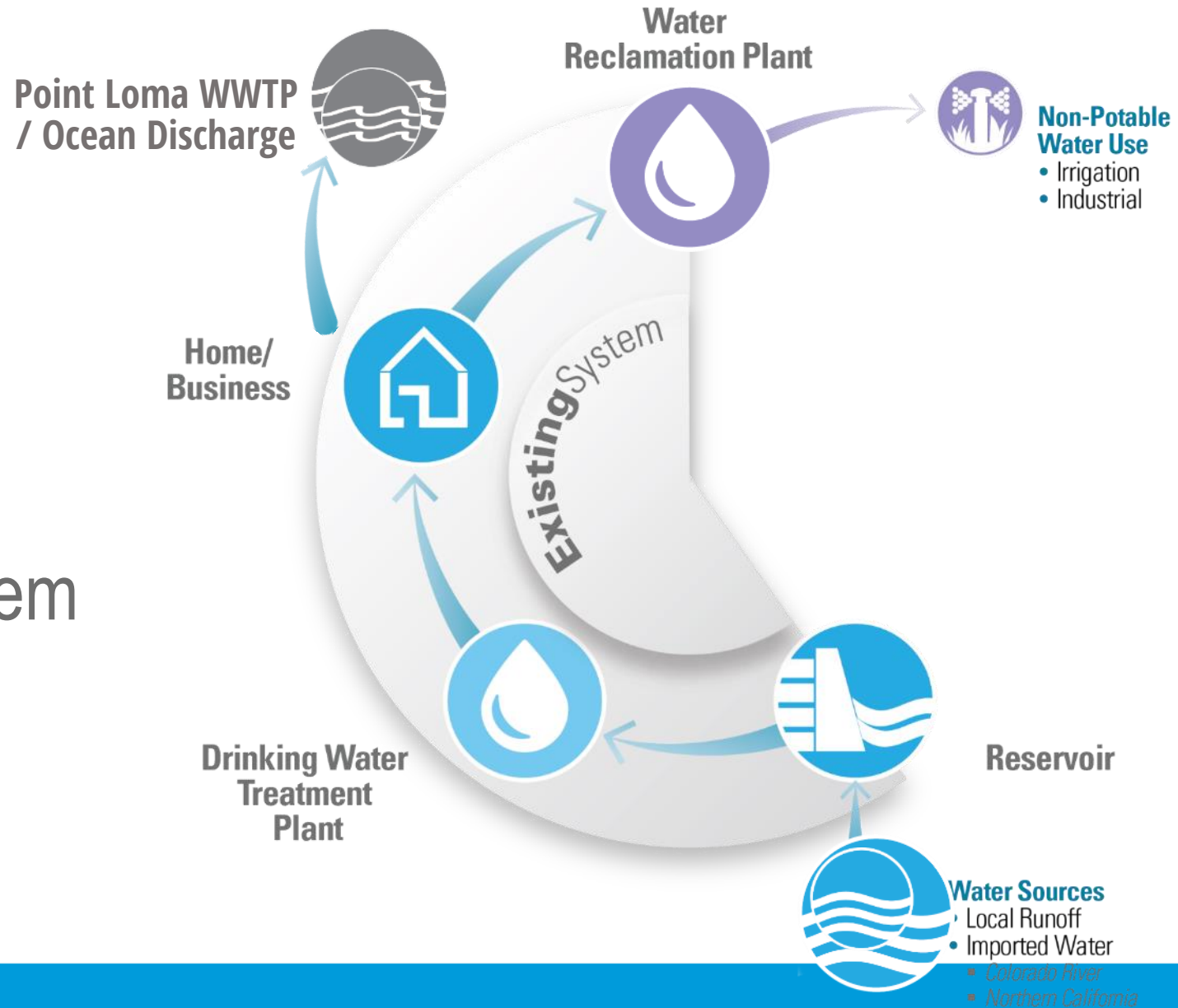
Multi-faceted Approach



- Conservation
- Desalination
- Groundwater Development
- Recycled Water
- Pure Water Program

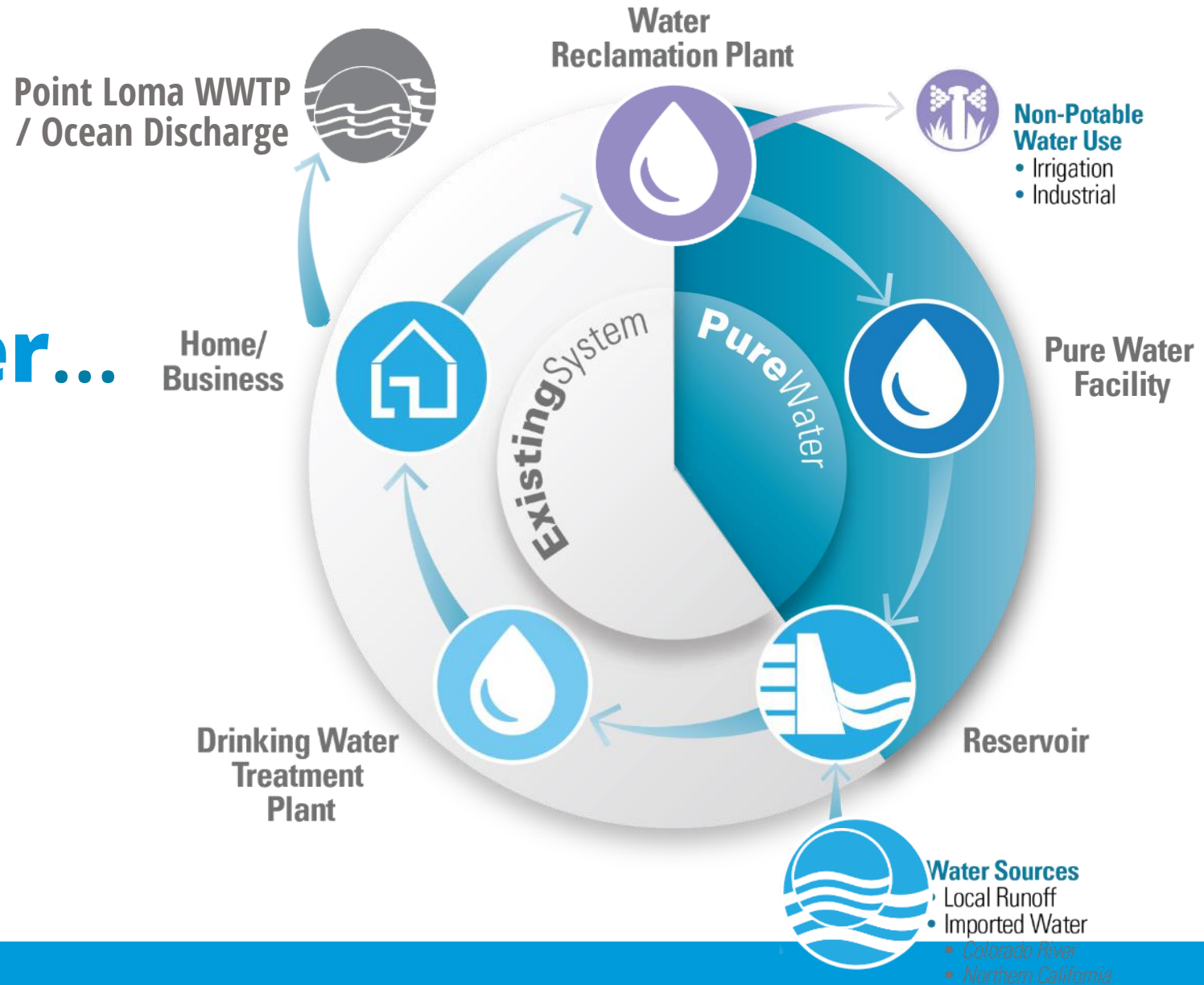
Existing System...

Primarily a
Single-Use System



Pure Water...

Completes Our Water Cycle



Pure Water Runs a Successful Demonstration Facility

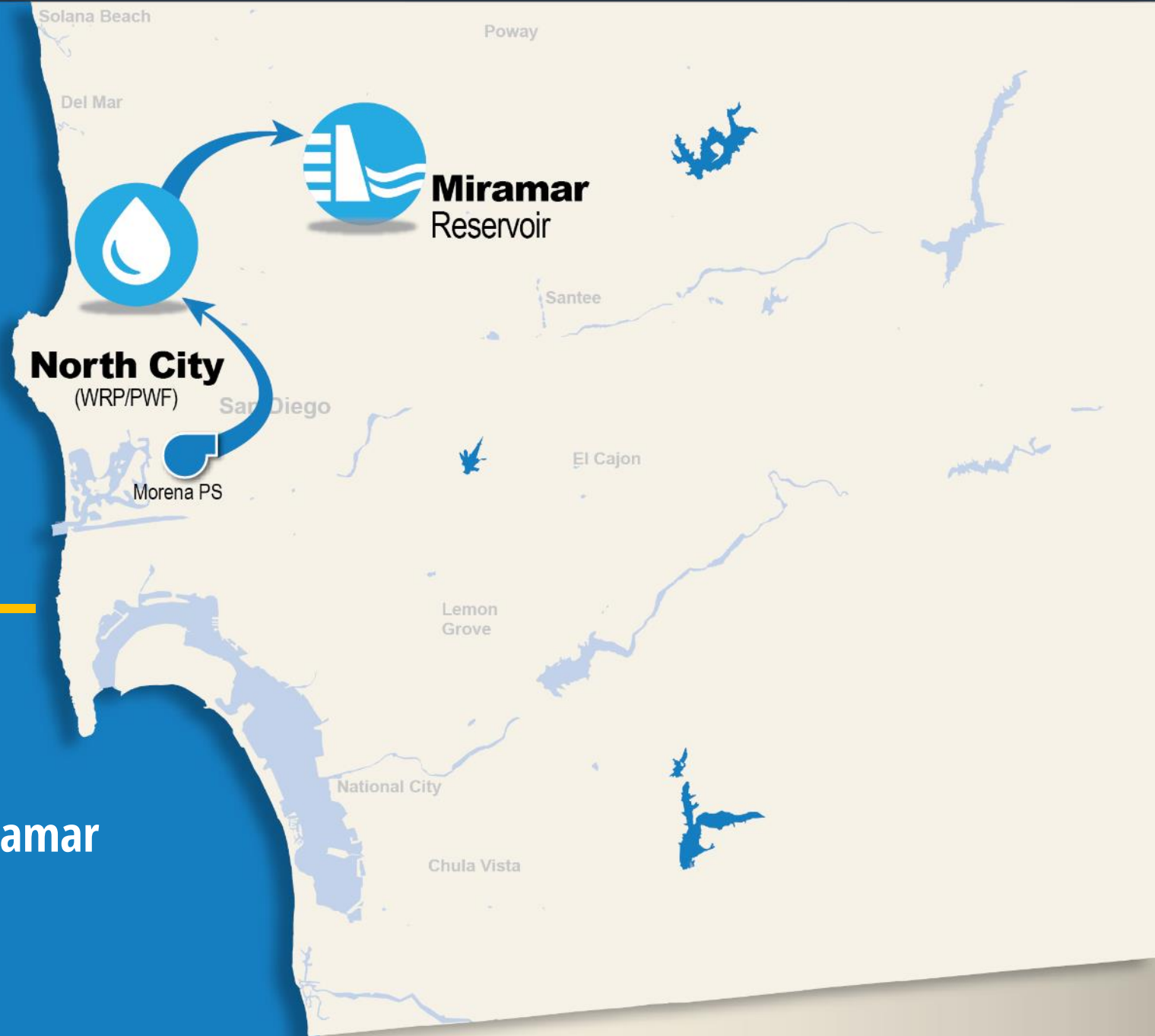


- 28,000 lab tests: **Met all standards**
- Water quality: **Exceptional**
- Energy use: **Renewable**

Pure Water
will produce
1/3
of your water
locally

Phase 1

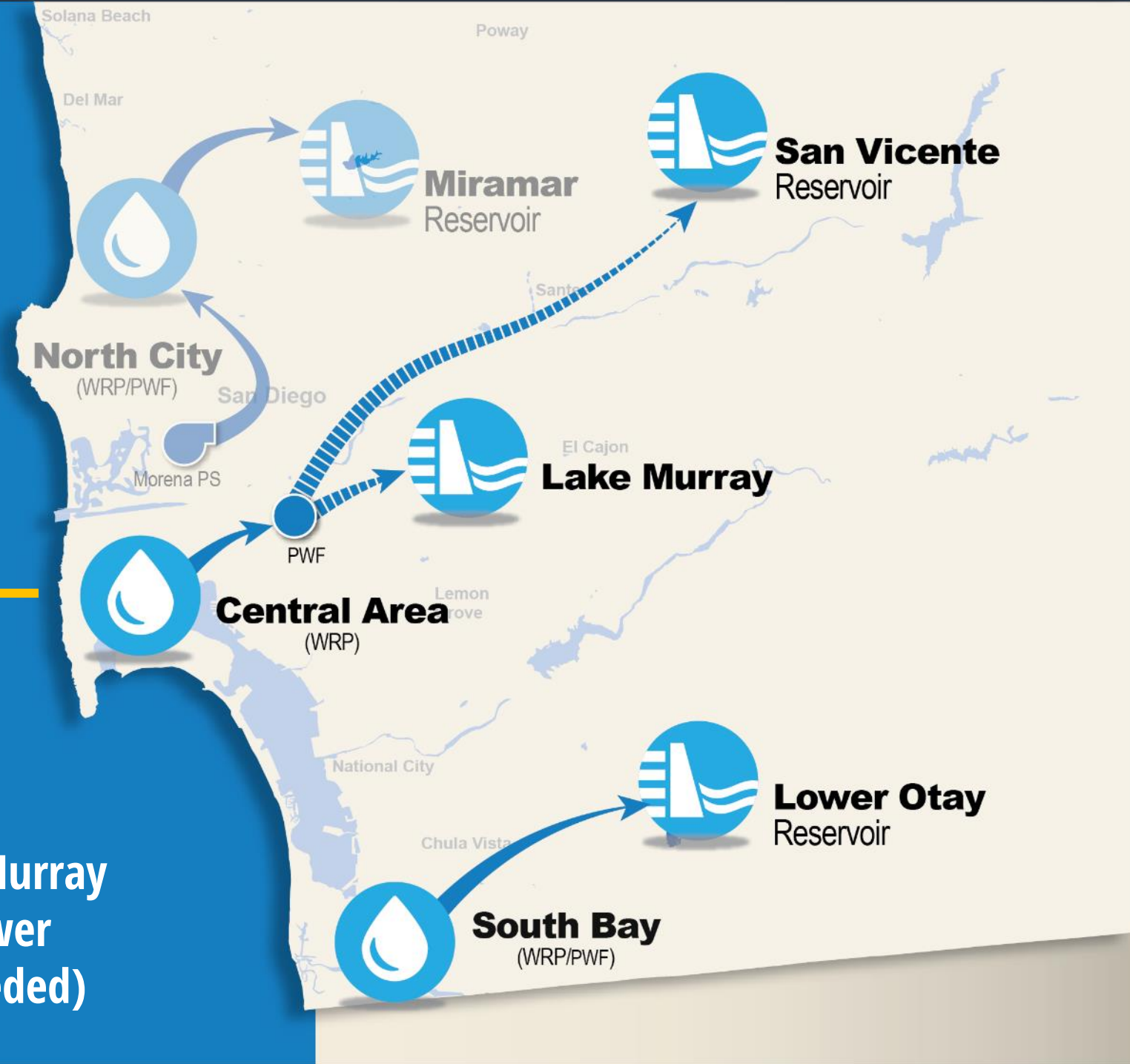
- 2021 Completion
- 30 mgd
- North City PWF to Miramar



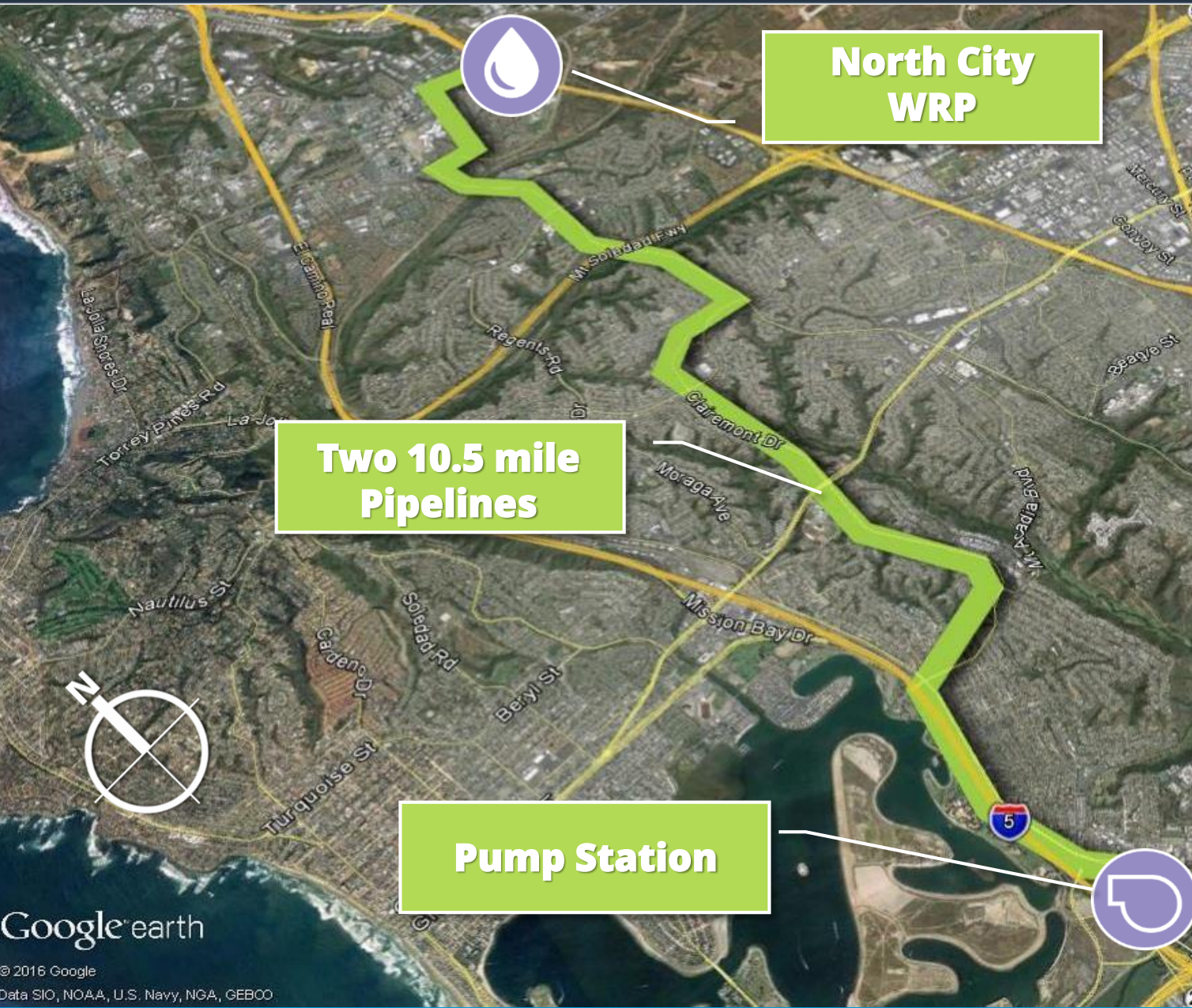
Pure Water
will produce
1/3
of your water
locally

Phases 2 & 3

- 2035 Completion
- 53 mgd
- Central Area PWF to San Vicente or Lake Murray
- South Bay PWF to Lower Otay Reservoir (if needed)



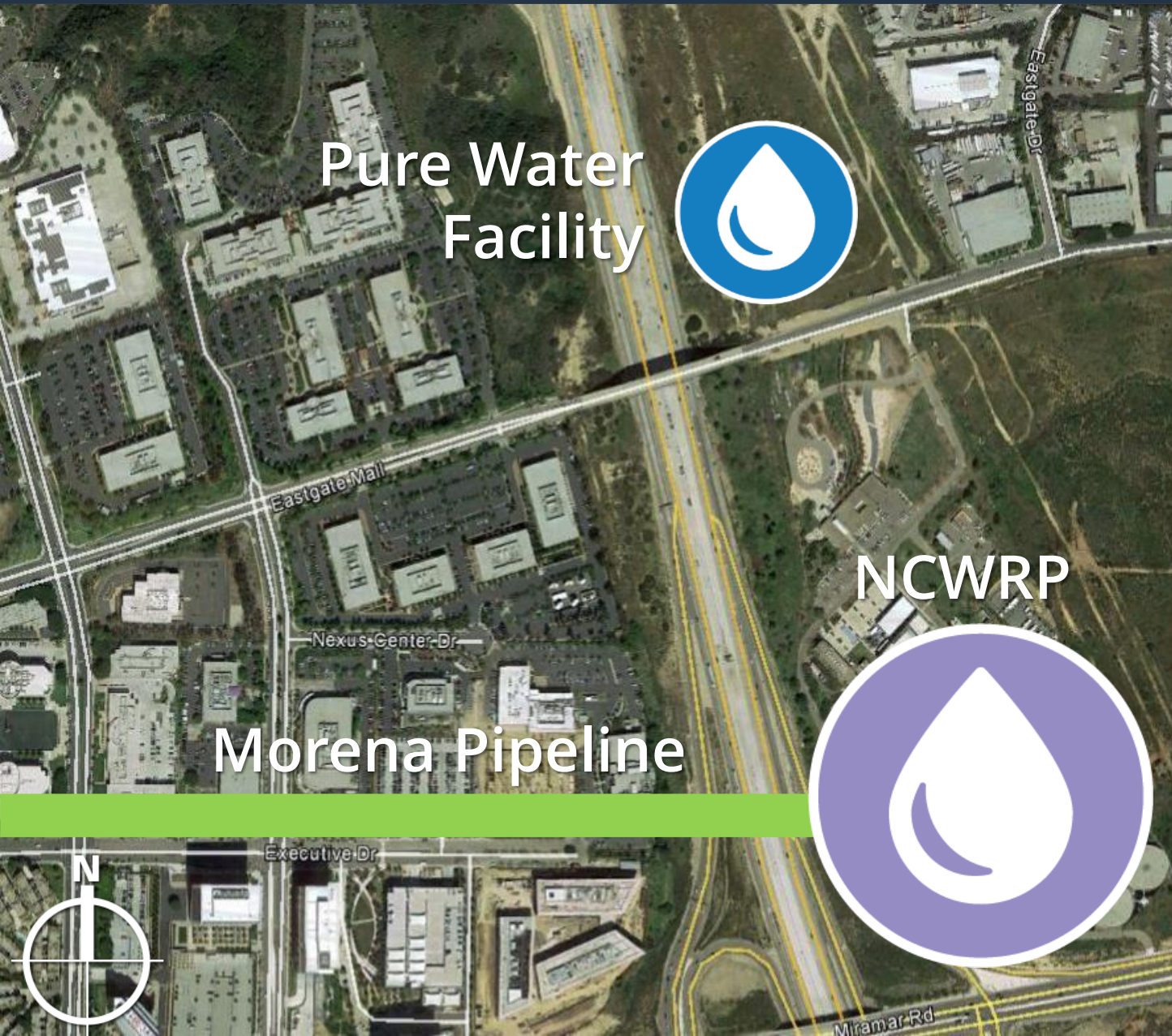
SD Morena Pump Station and Pipelines



- Conveys wastewater to North City Water Reclamation Plant (WRP)
- Supports Phase I Pure Water and recycled water production
- Trenchless construction will be used to avoid:
 - *environmentally sensitive areas*
 - *freeway crossings*
- Design completion: Mid 2018
- Construction: Early 2019 – Mid 2021



North City WRP Expansion



- Treats wastewater to recycled water standards
- Expansion nearly doubles the amount of recycled water produced to meet needs of:
 - *Pure Water Facility*
 - *Recycled Water System*
- Design Completion: Mid 2018
- Construction: Early 2019 - Late 2021



North City WRP Expansion

- Plant capacity increased from 30 mgd to 52 mgd
- New pump station to convey flows to Pure Water Facility

New Secondary Clarifiers

New Classifying Selector

New Aeration Basins

PWF

Pure Water Facility Influent Pump Station

New Filters

Demolish Existing Secondary Clarifiers

New EQ Basin

New Primary Clarifiers

Retrofitted Aeration Basins





North City Pure Water Facility

Pure Water
Facility



NCWRP



- Treats recycled water to produce 30 mgd of purified water
- Includes a proven 5-step advanced water purification treatment process





North City Pure Water Facility



Ozonation



Biological
Activated
Carbon
Filters



Membrane
Filtration



Reverse
Osmosis

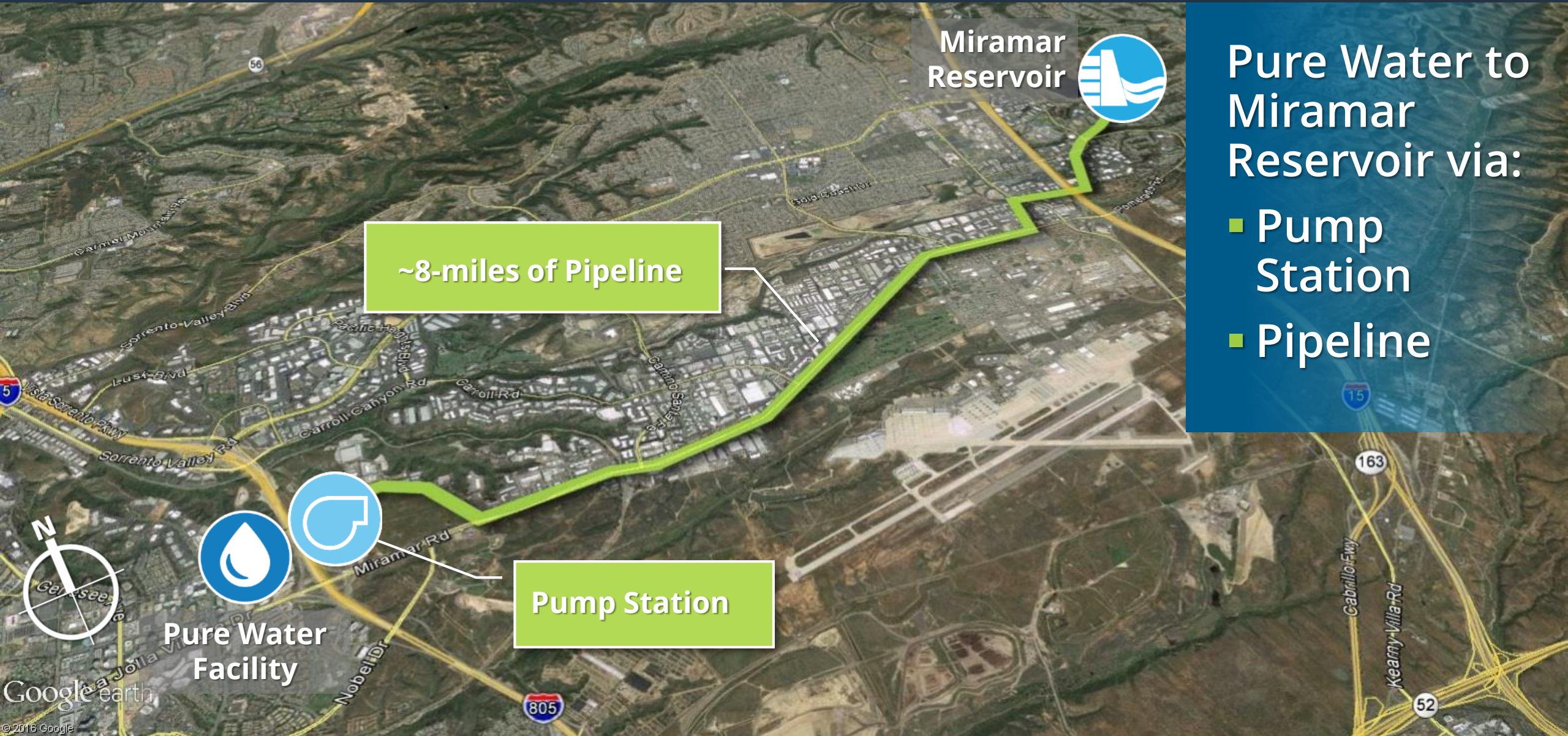


Ultraviolet
Disinfection
/Advanced
Oxidation

Design completion in 2018



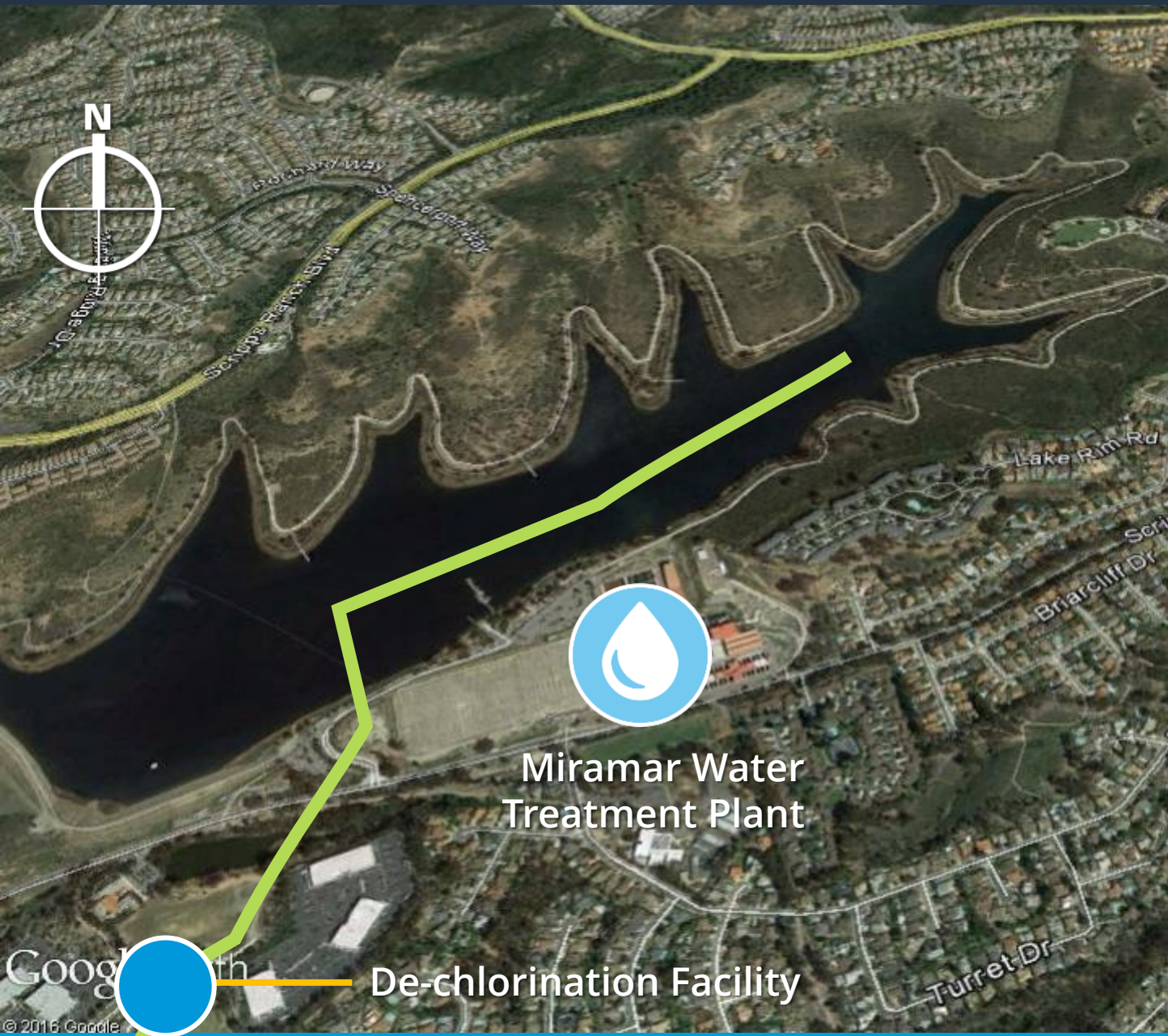
North City Pure Water Pump Station and Pipeline



Pure Water to
Miramar
Reservoir via:

- Pump Station
- Pipeline

SD Miramar Reservoir



The purified water:

- Is released via underwater pipeline in the reservoir
- Will blend with imported and local water supplies
- Design Completion: Early 2018
- Construction: Late 2018 - Late 2021



- **North City Pure Water Facility will Achieve LEED Silver Certification**
- **During construction 75% of waste will be recycled**



Pure Water provides the City with a safe, reliable and sustainable water supply.

Who Supports Pure Water?





www.purewatersd.org

Sign up for a tour of the
demonstration Pure Water Facility!



PureWaterSD



PureWaterSD



@PureWaterSD



PureWaterSD

Join our **mailing list** and **sign a support card**